

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Vignina 22313-1450 www.mpto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. 9062 | | |
|----------------------------------|----------------|----------------------|-------------------------|-------------------------|--|--|
| 09/929,465 | 08/14/2001 | Jeff Kirsner | HALB:020 | | | |
| 7: | 590 06/24/2003 | | | | | |
| Karen B. Tripp | | | EXAMINER | | | |
| Attorney at Lav P.O. Box 1301 | | | TUCKER, PHILIP C | | | |
| Houston, TX | 77251-1301 | | ART UNIT | PAPER NUMBER | | |
| | | | 1712 | 7 Ď | | |
| | | | DATE MAILED: 06/24/2003 | DATE MAILED: 06/24/2003 | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. A | | Applicant(s) | | | | | | |
|--|------------------------------------|--|----------------|--|--|--|--|--|--|
| Office Action Commons | 929465 Kir Examiner PiTucker | | SNER | | | | | | |
| Office Action Summary | Examiner 0 | | Group Art Unit | | | | | | |
| | 1 luck | - Tolucker | | | | | | | |
| -The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address - | | | | | | | | | |
| Period for Reply | | | | | | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. | | | | | | | | | |
| Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication. Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). | | | | | | | | | |
| Status | | | | | | | | | |
| Responsive to communication(s) filed on $4/4/03$ | | | | | | | | | |
| ☐ This action is FINAL. | | | | | | | | | |
| □ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 1 1; 453 O.G. 213. | | | | | | | | | |
| Disposition of Claims | | | | | | | | | |
| \nearrow Claim(s) 1, 3-51, 53 - 89 Of the above claim(s) 59-80, 86-89 \nearrow Claim(s) 4 \nearrow Claim(s) 1, 3, 5-51, 53-58, 81-85 | is/are p | is/are pending in the application. | | | | | | | |
| Of the above claim(s) $59-80$, $86-89$ | is/are v | is/are withdrawn from consideration. | | | | | | | |
| Claim(s) 4 | is/are a | is/are allowed. | | | | | | | |
| © Claim(s) 1, 3, 5-51, 53-58, 81-85 | is/are r | is/are rejected. | | | | | | | |
| ☐ Claim(s) | | | | | | | | | |
| ☐ Claim(s) | | | | | | | | | |
| Application Papers requirement | | | | | | | | | |
| ☐ The proposed drawing correction, filed on | | | | | | | | | |
| ☐ The drawing(s) filed on is/are objected to by the Examiner | | | | | | | | | |
| ☐ The specification is objected to by the Examiner. | | | | | | | | | |
| ☐ The oath or declaration is objected to by the Examiner. | | | | | | | | | |
| Pri rity under 35 U.S.C. § 119 (a)-(d) | | | | | | | | | |
| □ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)–(d). | | | | | | | | | |
| □ All □ Some* □ None of the: | | | | | | | | | |
| ☐ Certified copies of the priority documents have been received. | | | | | | | | | |
| ☐ Certified copies of the priority documents have been received in Application No | | | | | | | | | |
| □ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)) | | | | | | | | | |
| *Certified copies not received: | | | | | | | | | |
| | | | | | | | | | |
| Attachment(s) [Vinformation Disclosure Statement(s), PTO-1449, Paper No(s) | s) 🗆 In | terview Sumi | mary, PTO-413 | | | | | | |
| □ Notice of Reference(s) Cited, PTO-892 | | ☐ Notice of Informal Pat nt Application, PTO-152 | | | | | | | |
| ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948 | | | | | | | | | |
| Office Action Summary | | | | | | | | | |
| | | | | | | | | | |

U.S. Patent and Trademark Office PTO-326 (Rev. 11/00)

Part of Paper No. _____

Art Unit: 1712

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 42, 50, 51, 53-55, 57, 58, 85 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 42, olefins cannot have the structure of paraffins, since paraffins do not conatain a double bond.

In claim 50 the term "selected form the group comprising" is used. Such is improper Markush terminology, since such would include other glyceride triesters not listed therein. The proper term "selected from the group consisting of" or equivalent should be used (see MPEP 2173.05 (h)). Dependent claims fall herewith.

Art Unit: 1712

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in-
- (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
- (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).
- 4. Claims 14, 18-22, 25, 26 and 82 are rejected under 35 U.S.C. 102(b) as being anticipated by Mueller (5869434).

Mueller teaches a drilling fluid which comprises an ester and linear alpha olefin as continuous phase, wherein the ester may be a product such as PETROFREE, or rapeseed oil.

Applicants method of making the ester does not distinguish, since in product by process claims, only the product is examined (In re Thorpe 227 USPQ 964).

5. Claims 14, 18-20, 50, 51, 53-55, 57, 58 and 85 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 95/26386.

Art Unit: 1712

WO teaches an invert emulsion drilling fluid which comprises a triglyceride ester oil and a mixture of alpha olefins or an ester, wherein the scope of the triglyceride ester and ester are within the scope of the present invention (see page 4, lines8-15), and page 4, line 29 - page 5, line 9. Ultridrill taught in Example 9 is a mixture of C14-16 alpha olefins.

6. Claims 50, 51, 53-55, 57, 58 and 85 are rejected under 35 U.S.C. 102(e) as being anticipated by Mueller (6165946).

Mueller teaches a drilling fluid which comprises esters of 2-ethylhexanol alcohols and rapeseed oil (see Example 13). The use of the term "selected from the group comprising" opens up the claim to other glyceride triesters other than those listed, and thus does not exclude rapeseed oil. Applicants method of making the ester does not distinguish, since in product by process claims, only the product is examined (In re Thorpe 227 USPQ 964).

7. Claims 1, 3, 5-9, 12-22, 25-28, 30-33, 36-38, 43, 44, 48-51, 53, 54, 54, 57, 58, 81-85 are rejected under 35 U.S.C. 102(e) as being anticipated by Patel (US 2001/0009890 A1).

Patel teaches a drilling fluid which comprises esters and an C16-18 isomerized olefin (see examples). Patel further teaches the combination of various esters and hydrocarbons such as mineral oils (see claims 1 and 9). Such mineral oils would comprise paraffins according to the present invention. Applicants method of making the ester does not distinguish, since in product by process claims, only the product is examined (In re Thorpe 227 USPQ 964).

Art Unit: 1712

Claim Rejections - 35 USC § 103

- 8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 9. Claims 1, 10, 11, 14, 23, 24, 38-42, 45-47, 50, 54-56, 81, 82, 84, 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patel (2001/0009890 A1).

Patel teaches a drilling fluid which comprises esters and an C16-18 isomerized olefin (see examples). Patel further teaches the combination of various esters and hydrocarbons such as mineral oils (see claims 1 and 9). Such mineral oils would comprise paraffins according to the present invention. Patel differs from the present invention in that the use of 2-ethylhexanol is not disclosed, and the specific composition of the mineral is not disclosed. The use of 2-ethylhexanol would be obvious to one of ordinary skill in the art given the teaching of Patel that alcohols of C1-12 length may be used in the formation of the Esters (claim 1). Furthermore, the use of low aromatic mineral oils, comprising paraffins and olefins of low carbon chain length in order to protect the environment would be an obvious variation to one of ordinary skill in the art.

Art Unit: 1712

10. Claims 27-37 and 83 rejected under 35 U.S.C. 103(a) as being unpatentable over Lin (5569642) in view of Mueller (6165946).

Lin teaches the use of a mixture of linear and branched paraffins for use as the continuous phase of a drilling fluid. Lin teaches that the paraffin mixture may be used in combination with an ester in order to improve the performance of the fluid or lower costs (column 3, lines 39-43) Lin differs from the present invention is not disclosing an example of such esters. Mueller teaches the use of an ester oil in drilling fluids which comprises esters of 2-ethylhexanol (column 22). It would be obvious to one of ordinary skill in the art to use known drilling fluid ester formulations such as that of Mueller, in the drilling fluid of Lin, given the teaching of Lin that esters may be used therein in order to improve drilling performance, or lower cost.

- 11. Claim 4 is allowable over the art of record.
- Applicants arguments have been considered but are not deemed fully persuasive.

 Applicants arguments with regard to the term "isomerized olefin" have been considered with the following effect. Although applicants specification at page 7, lines 1-3 teach that the isomerized olefin is preferably other than a linear alpha olefin, suggesting that it may be a linear alpha olefin although the preference would be that it is not, the claims herein have been interpeted that the term "isomerized olefin" does not include linear alpha olefins. In the event that any claim herein is allowed containing the term "isomerized olefin", a clear statement in the reasons for allowance

Application/Control Number: 09/929465

Art Unit: 1712

will be made that the term is not inclusive of a linear alpha olefin, even when one is made by an isomerization process, and is not enforceable against such linear alpha olefins. Claim rejections over Patel '434 with respect to isomerized olefins have been withdrawn. It is noted that applicant did not address claims 14, and those dependnet thereform, which do not cite an isomerized olefin, with respect to Patel '434.

With respect to Mueller '946, applicants amended claim uses the term "selected from the group comprising" which does not exclude rapeseed oil.

With respect to Patel US 2001/0009890 it is not seen how the use of fluids with negative alkalinity would distinguish over the present claims, since no such distinguishing feature is taught by applicants claims. Patel further teaches drilling fluids with negative alkalinity, and with lime in Table 9, thus such is not a distinguishing factor. Patel merely uses components to prevent hydrolysis of esters, which routinely occurs in drilling operations. The esters used by Patel are not distinguished by the claims of the present invention, and contrary to applicants assertion, are within the scope of the typical esters used in the prior art, as shown in paragraph 33. The C8-C24 carboxylic acid esters of Patel clearly overlaps in scope with the C6-C14 carboxylic acid esters taught as preferred by applicants specification, and thus no distinction exists between these esters.

Applicants arguments with respect to Lin in view of Mueller is not persuasive, since one of ordinary skill in the art would look to the type of esters used in the prior art, to determine the type of esters which may be used. Since both are directed to invert emulsion drilling fluids, one

Art Unit: 1712

of ordinary skill in the art would clearly look to prior art such as Mueller, in order to determine the scope of esters to be used in Lin.

Applicants use of the term "consisting essentially of" does not distinguish over the prior art, since all the base phases are useful to form invert emulsion drilling fluids.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Tucker whose telephone number is (703) 308-0529. The examiner's normal working hours are 7:30am-4:00pm, Monday-Friday. If necessary SPE Robert Dawson may be contacted at 703-308-2340. For inquiries of a general nature call the receptionist at 703-308-0651. The group FAX no. is 703-872-9310. The after final fax no. Is 703-872-9311.

PCT-2830 June 20, 2003

PHILIP C. TUCKER ART UNIT 1712